



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Admistrative Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,622	08/16/2006	Minoru Ohyama	27593U	3814
20529	7590	06/07/2010	EXAMINER	
THE NATH LAW GROUP 112 South West Street Alexandria, VA 22314			FISCHER, MARK L	
ART UNIT	PAPER NUMBER			
2627				
MAIL DATE	DELIVERY MODE			
06/07/2010	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/589,622	<b>Applicant(s)</b> OHYAMA, MINORU
	<b>Examiner</b> Mark L. Fischer	<b>Art Unit</b> 2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 February 2010 and 04 May 2010.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 14,15,17 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 14,15,17 and 20-25 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is in response to the Remarks filed on February 16, 2010 and May 4, 2010 and the claim set filed on May 4, 2010.

#### ***Claim Objections***

2. Claim 14 is objected to because of the following informalities: **Claim 14, line 42:** “the detection signal” should be --a detection signal--. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 14, 15, 17, and 20-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.**

Claim 14, lines 43+ recite the limitation “wherein the operation unit: performs a subtraction operation between the signal that is photoelectrically converted from the light received by the plurality of second light receiving regions that receive the third and fourth diffracted beams and unnecessary light reflected by the one or more of the plurality of first information medium recording layers other than the recording layer that is a recording or

reproducing object and the signal that is photoelectrically converted from the light received by the plurality of first light receiving regions that receive unnecessary light scattering over the substrate including the plurality of first and second light receiving regions reflected by the one or more of the plurality of *first information medium* recording layers other than the recording layer that is the recording or reproducing object, ... when the one wavelength is the second wavelength" (emphasis added, hereinafter referred to as **limitation (a)**).

**Claim 14, lines 6 and 16-19** recite the limitation "a hologram element *to diffract ... third and fourth sub-beams* of the second wavelength that are reflected by the single recording layer of the second information recording medium ... during recording or reproducing information to or *from the second information recording medium*" (emphasis added, hereinafter referred to as **limitation (b)**).

**Claim 14, line 53** recites the limitation "removes a signal component representative of the *unnecessary light* from the signal that is photoelectrically converted from the light received by the plurality of second light receiving regions ... *when the one wavelength is the second wavelength*" (emphasis added, hereinafter referred to as **limitation (c)**).

**Limitations (a) and (b)**, when read in light of each other, claim that "third and fourth diffracted beams" "from the second information recording medium" are present at the same time that the unnecessary light reflected from the "first information medium" is present. In other words, limitations (a) and (b), when read in light of each other, claim that the "first information medium" and the "second information recording medium" are used simultaneously by the optical device. However, the applicant's disclosure discloses a "first-type optical disc 201" (¶ 0058) and a "second-type optical disc 201" (¶ 0061), where the use of the same reference numeral "201"

Art Unit: 2627

for both discs suggests, inter alia, that only one of the two types of discs is used at one time by the optical device and thus that the two types of discs are not simultaneously used by the optical device. Therefore, the applicant's disclosure does not provide support for such a claim of a plurality of recording mediums being simultaneously used and does not provide support for light relating to two recording mediums being simultaneously present and therefore the applicant does not have possession of the claimed invention. No new matter should be added.

**Limitations (a) and (c)**, when read in light of each other, claim that "a signal component representative of the unnecessary light [reflected from the first information medium]" is removed "when the one wavelength is the second wavelength". In other words, unnecessary light from the first information medium is removed from light from the second information recording medium. The applicant's disclosure does not provide support for such a claim of light from one type of recording medium being removed from light of the other type of recording medium, the reasons being similar to those, inter alia, that were applied to **limitations (a) and (b)** above. Therefore, the applicant does not have possession of the claimed invention. No new matter should be added.

**Dependent claims** are rejected for including the language of rejected base claims.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 14, 15, 17, and 20-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**Claim 14, lines 20-21** recites the limitation “the first and second diffracted beams” that are diffracted from the first and second sub-beams by the hologram element”. This limitation can be interpreted in two ways:

- (a) The limitation can be interpreted to mean that the first diffracted beam is diffracted from the first sub-beam and that the second diffracted beam is diffracted from the second sub-beam. In this case, if the first diffracted beam is meant to be a beam that is diffracted solely from the first sub-beam and not at all from the second sub-beam, then the limitation is vague and indefinite because such a relation between the first diffracted beam and the first sub-beam is not made clear in the limitation. Likewise, if the second diffracted beam is meant to be a beam that is diffracted solely from the second sub-beam and not at all from the first sub-beam, then the limitation is vague and indefinite because such a relation between the second diffracted beam and the second sub-beam is not made clear in the limitation. If this is the interpretation intended by the applicant, then it is suggested that the word “respectively” or a similar word be used in the limitation in order to make the relationships clear.
- (b) The limitation can be interpreted to mean that the first and second diffracted beams are each diffracted from a combination of the first and second sub-beams. In this case, if the first and second diffracted beams are meant to be beams that are diffracted from a combination of the first and second sub-beams, then there is insufficient antecedent basis for the limitation “the first and second diffracted beams” because, while claim 14, lines 6 and 10 recites “a hologram element to diffract ... first and second sub-

beams", it was not previously introduced that "the first and second diffracted beams" are diffracted from a combination of the first and second sub-beams.

In addition, **Claim 14, lines 23-24** recites the limitation "the third and fourth diffracted beams that are diffracted from the third and fourth sub-beams by the hologram element" which is similar to the limitation of lines 20-21 cited above and is rejected using the same reasoning that is applied to the limitation of lines 20-21 above.

**Claim 14, lines 43+** recite the limitation "wherein the operation unit: performs a subtraction operation between the signal that is photoelectrically converted from the light received by the plurality of second light receiving regions that receive the third and fourth diffracted beams and unnecessary light reflected by the one or more of the plurality of first information medium recording layers other than the recording layer that is a recording or reproducing object and the signal that is photoelectrically converted from the light received by the plurality of first light receiving regions that receive unnecessary light scattering over the substrate including the plurality of first and second light receiving regions reflected by the one or more of the plurality of first information medium recording layers other than the recording layer that is the recording or reproducing object, ... when the one wavelength is the second wavelength" (emphasis added, hereinafter referred to as **limitation (a)**).

**Claim 14, lines 6 and 16-19** recite the limitation "a hologram element to diffract ... third and fourth sub-beams of the second wavelength that are reflected by the single recording layer of the second information recording medium ... during recording or reproducing information to or from the second information recording medium" (emphasis added, hereinafter referred to as **limitation (b)**).

**Claim 14, line 53** recites the limitation “removes a signal component representative of the unnecessary light from the signal that is photoelectrically converted from the light received by the plurality of second light receiving regions ... when the one wavelength is the second wavelength (emphasis added, hereinafter referred to as **limitation (c)**).

**Limitations (a) and (b)**, when read in light of each other, claim that “third and fourth diffracted beams” “from the second information recording medium” are present at the same time that the unnecessary light reflected from the “first information medium” is present. In other words, limitations (a) and (b), when read in light of each other, claim that the “first information medium” and the “second information recording medium” are used simultaneously by the optical device. However, the applicant’s disclosure discloses a “first-type optical disc 201” (¶ 0058) and a “second-type optical disc 201” (¶ 0061), where the use of the same reference numeral “201” for both discs suggests, inter alia, that only one of the two types of discs is used at one time by the optical device and thus that the two types of discs are not simultaneously used by the optical device. Therefore, when read in light of the applicant’s disclosure, this limitation is misdescriptive of the applicant’s invention and does not distinctly claim the applicant’s invention.

**Limitations (a) and (c)**, when read in light of each other, claim that “a signal component representative of the unnecessary light [reflected from the first information medium]” is removed “when the one wavelength is the second wavelength”. In other words, unnecessary light from the first information medium is removed from light from the second information recording medium. The applicant’s disclosure does not provide support for such a claim of light from one type of recording medium being removed from light of the other type of recording medium, the reasons being similar to those, inter alia, that were applied to **limitations (a) and (b)** above. Therefore,

when read in light of the applicant's disclosure, this limitation is misdescriptive of the applicant's invention and does not distinctly claim the applicant's invention.

**Dependent claims** are rejected for including the language of rejected base claims.

***Allowable Subject Matter***

7. Claims 14, 15, 17, and 20-25 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph and 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Fischer whose telephone number is (571) 270-3549.

The examiner can normally be reached on Monday-Friday from 9:00AM to 6:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HOA T NGUYEN/  
Supervisory Patent Examiner, Art Unit 2627

/Mark L Fischer/  
Examiner, Art Unit 2627